

A

Attorney's Docket No. 69430

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the application of

Inventor(s): SCHUMACHER et al.

For: **PROCESS AND DEVICE FOR DETERMINING THE ACTIVITY OF ENZYMES IN LIQUIDS, OR THE  
CONCENTRATION AND/OR ACTIVITY OF INHIBITORS IN LIQUIDS**

1. Type of Application

This new application is for a(n)

(check one applicable item below)

- ☐ Original  
☐ Design  
☐ Plant  
☐ Divisional  
☒ Continuation  
☐ Continuation-In-Part (C-I-P)

I hereby certify that this paper  
is being deposited with the United States  
Postal Service as Express Mail in an  
envelope addressed to: Assistant Commissioner for  
Patents, Washington, D.C. 20231 on this date.

5-21-99 Donald C. Schumacher  
Date

Express Mail Label No.  
EL045291105 US

2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120 or 121)

- ☒ The new application being transmitted claims the benefit of prior U.S. application; USSN 08/793,833). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed That Are Required for Filing Date under 37 C.F.R. 1.53(b) (Regular) or 37 C.F.R. 1.153 (Design) Application

- 15 Pages of specification  
4 Pages of claims  
1 Pages of Abstract  
5 Sheets of drawing(s)

- ☒ formal  
☒ informal

05/21/99  
Jc520 U.S. PTO

Jc518 U.S. PTO  
09/316539  
05/21/99

09316539, 052199

(complete the following if applicable)

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S) (37 C.F.R. 1.84(b)).

**4. Additional papers enclosed**

- ☒ Preliminary Amendment  
☒ Information Disclosure Statement (37 C.F.R. 1.98)  
☒ Form PTO-1449 (PTO/SB/08A and 08B)  
☐ Citations  
☐ Verified Statement Claiming Small Entity Status (copy)  
☐ Declaration of Biological Deposit  
☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.  
☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative  
☐ Special Comments  
☐ Other: Notification of Filing of Continuing or Divisional Application (for parent application)

**5. Declaration or Oath**

- ☒ Enclosed (copy)  
Executed by  
*(check all applicable boxes)*
- ☒ inventor(s)  
☐ legal representative of inventor(s) (37 CFR 1.42 or 1.43)  
☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached  
☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.
- ☐ Not enclosed.
- ☐ Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of *all* the above named inventor(s)  
☐ Showing that the filing is authorized.  
*(not required unless called into question. 37 CFR 1.41(d))*

**6. Inventorship Statement**

The inventorship for all the claims in this application are:

- ☒ The same.

0034539-052199  
001250-554260

or

- ☐ Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
- ☐ is submitted.
- ☐ will be submitted.

**7. Language**

- ☒ English
- ☐ Non-English
- ☐ The attached translation is a verified translation (37 C.F.R. 1.52(d)).

**8. Assignment**

- ☐ An assignment of the invention to \_\_\_\_\_
- ☐ is attached. A separate ☐ COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION or ☐ FORM PTO-1595 is also attached.
- ☐ will follow.

**9. Certified Copy**

Certified copy(ies) of the application(s)

_____ (Country)	_____ (Appln. No.)	_____ (Filed)
_____ (Country)	_____ (Appln. No.)	_____ (Filed)
_____ (Country)	_____ (Appln. No.)	_____ (Filed)

from which priority is claimed

- ☐ is (are) attached.
- ☐ will follow.

0931659-05199  
651250-66591260

10. Fee Calculation (37 C.F.R. 1.16)

A. ☒ Regular application

CLAIMS AS FILED				
Number filed		Number Extra	Rate	Basic Fee 37 C.F.R. 1.16(a) \$760.00
Total Claims (37 CFR 1.16(c))	12- 20 =	0	x	\$18.00
Independent Claims (37 CFR 1.16(b))	1- 3 =	0	x	\$78.00
Multiple dependent claim(s), if any (37 CFR 1.16(d))			+	\$260.00

☒ Amendment canceling extra claims is enclosed.

☒ Amendment deleting multiple-dependencies is enclosed.

☐ Fee for extra claims is not being paid at this time.

Filing Fee Calculation \$760.00

B. ☐ Design application  
(\$310.00 -- 37 CFR 1.16(f))

Filing Fee Calculation \$\_\_\_\_

C. ☐ Plant application  
(\$480.00 -- 37 CFR 1.16(g))

Filing Fee Calculation \$\_\_\_\_

11. Small Entity Statement(s)

☒ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is (are) attached.

*(complete the following if applicable)*

☒ Status as a small entity was claimed in prior application 08/793,833, filed on February 18, 1997, from which benefit is being claimed for this application under:

35 U.S.C. ☐ 119(e),

☒ 120,

☐ 121,

☐ 365(c),

and which status as a small entity is still proper and desired.

08/793,833 "6639T.E.50

☒ A copy of the verified statement in the prior application is included.

Filing Fee Calculation (50% of **A, B** or **C** above)    \$380.00

**12. Request for International-Type Search (37 C.F.R. 1.104(d))**

*(complete if applicable)*

- ☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

**13. Fee Payment Being Made at This Time**

☐ Not Enclosed

☐ No filing fee is to be paid at this time.

☒ Enclosed

- ☒ Basic filing fee \$380.00
- ☐ Recording assignment  
(\$40.00; 37 C.F.R. 1.21(h))  
(See attached COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION \$ \_\_\_\_\_)
- ☐ Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached  
(\$130.00; 37 C.F.R. 1.47 and 1.17(h))
- ☐ For processing an application with a specification in a non-English language  
(\$130.00; 37 C.F.R. 1.52(d) and 1.17(k)) \$ \_\_\_\_\_
- ☐ Processing and retention fee  
(\$130.00; 37 C.F.R. 1.53(d) and 1.21(l)) \$ \_\_\_\_\_

**14. Method of Payment of Fees**

- ☒ Check in the amount of \$ 380.00
- ☐ Charge Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.00. A duplicate of this transmittal is attached.

**15. Authorization to Charge Additional Fees**

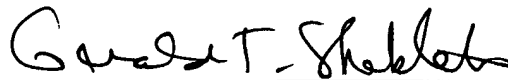
- ☒ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 23-0290 :
- ☒ 37 C.F.R. 1.16(a), (f) or (g) (filing fees)
- ☒ 37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)
- ☐ 37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a dated later than the filing date of the application)

- ☒ 37 C.F.R. 1.17 (application processing fees)
- ☐ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))

16. Instructions as to Overpayment

- ☒ Credit Account No. 23-0290
- ☐ Refund

Dated: May 21, 1999



---

Gerald T. Shekleton,  
Attorney or Agent of Record  
Registration No. 27,466

06T230 6C59TE60

<h2 style="margin: 0;">FEE TRANSMITTAL</h2> <p style="font-size: small; margin: 5px 0;">Note: Effective October 1, 1997. Patent fees are subject to annual revision.</p>	<b>Complete if Known</b>												
<b>TOTAL AMOUNT OF PAYMENT</b> (\$ ) 380.00	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Application Number</td><td style="width: 50%;"></td></tr> <tr><td>Filing Date</td><td></td></tr> <tr><td>First Named Inventor</td><td>SCHUMACHER et al.</td></tr> <tr><td>Group Art Unit</td><td>1744</td></tr> <tr><td>Examiner Name</td><td></td></tr> <tr><td>Attorney Docket Number</td><td>69430</td></tr> </table>	Application Number		Filing Date		First Named Inventor	SCHUMACHER et al.	Group Art Unit	1744	Examiner Name		Attorney Docket Number	69430
	Application Number												
	Filing Date												
	First Named Inventor	SCHUMACHER et al.											
	Group Art Unit	1744											
Examiner Name													
Attorney Docket Number	69430												

METHOD OF PAYMENT (check one)	FEE CALCULATION (continued)																																																																																																																																																																																			
<p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number: <u>23-0920</u></p> <p>Deposit Account Name: <u>Welsh &amp; Katz, Ltd.</u></p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17    <input type="checkbox"/> Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance</p> <p>2. <input checked="" type="checkbox"/> Payment Enclosed:</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> Check    <input type="checkbox"/> Money Order    <input type="checkbox"/> Other</p>	<h3>3. ADDITIONAL FEES</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>950</td><td>217</td><td>475</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,510</td><td>218</td><td>755</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>2,060</td><td>228</td><td>1,030</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>310</td><td>219</td><td>155</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>310</td><td>220</td><td>155</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>270</td><td>221</td><td>135</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,320</td><td>241</td><td>660</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,320</td><td>242</td><td>660</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>450</td><td>243</td><td>225</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>670</td><td>244</td><td>335</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>240</td><td>126</td><td>240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>790</td><td>246</td><td>395</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>149</td><td>790</td><td>249</td><td>395</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td></td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td></td></tr> <tr> <td colspan="5" style="text-align: right;"> <b>SUBTOTAL (3)</b> (\$ ) _____           </td> </tr> </tbody> </table>	Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action		115	110	215	55	Extension for reply within first month		116	400	216	200	Extension for reply within second month		117	950	217	475	Extension for reply within third month		118	1,510	218	755	Extension for reply within fourth month		128	2,060	228	1,030	Extension for reply within fifth month		119	310	219	155	Notice of Appeal		120	310	220	155	Filing a brief in support of an appeal		121	270	221	135	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,320	241	660	Petition to revive - unintentional		142	1,320	242	660	Utility issue fee (or reissue)		143	450	243	225	Design issue fee		144	670	244	335	Plant issue fee		122	130	122	130	Petitions to the Commissioner		123	50	123	50	Petitions related to provisional applications		126	240	126	240	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment per property (times number of properties)		146	790	246	395	Filing a submission after final rejection (37 CFR 1.129(a))		149	790	249	395	For each additional invention to be examined (37 CFR 1.129(b))		Other fee (specify) _____						Other fee (specify) _____						<b>SUBTOTAL (3)</b> (\$ ) _____				
Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																															
105	130	205	65	Surcharge - late filing fee or oath																																																																																																																																																																																
127	50	227	25	Surcharge - late provisional filing fee or cover sheet																																																																																																																																																																																
139	130	139	130	Non-English specification																																																																																																																																																																																
147	2,520	147	2,520	For filing a request for reexamination																																																																																																																																																																																
112	920*	112	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																																
115	110	215	55	Extension for reply within first month																																																																																																																																																																																
116	400	216	200	Extension for reply within second month																																																																																																																																																																																
117	950	217	475	Extension for reply within third month																																																																																																																																																																																
118	1,510	218	755	Extension for reply within fourth month																																																																																																																																																																																
128	2,060	228	1,030	Extension for reply within fifth month																																																																																																																																																																																
119	310	219	155	Notice of Appeal																																																																																																																																																																																
120	310	220	155	Filing a brief in support of an appeal																																																																																																																																																																																
121	270	221	135	Request for oral hearing																																																																																																																																																																																
138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																																
140	110	240	55	Petition to revive - unavoidable																																																																																																																																																																																
141	1,320	241	660	Petition to revive - unintentional																																																																																																																																																																																
142	1,320	242	660	Utility issue fee (or reissue)																																																																																																																																																																																
143	450	243	225	Design issue fee																																																																																																																																																																																
144	670	244	335	Plant issue fee																																																																																																																																																																																
122	130	122	130	Petitions to the Commissioner																																																																																																																																																																																
123	50	123	50	Petitions related to provisional applications																																																																																																																																																																																
126	240	126	240	Submission of Information Disclosure Stmt																																																																																																																																																																																
581	40	581	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																																
146	790	246	395	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																																
149	790	249	395	For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																																																																
Other fee (specify) _____																																																																																																																																																																																				
Other fee (specify) _____																																																																																																																																																																																				
<b>SUBTOTAL (3)</b> (\$ ) _____																																																																																																																																																																																				
<h3>1. FILING FEE</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>101</td><td>790</td><td>201</td><td>395</td><td>Utility filing fee</td><td>380.00</td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>540</td><td>207</td><td>270</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>790</td><td>208</td><td>395</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>150</td><td>214</td><td>75</td><td>Provisional filing fee</td><td></td></tr> <tr> <td colspan="5"><b>SUBTOTAL (1)</b></td> <td>(\$ ) 380.00</td> </tr> </tbody> </table> <h3>2. CLAIMS</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total Claims</th> <th>Extra</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>-20 = 0</td> <td>X</td> <td></td> </tr> <tr> <td>Independent Claims</td> <td>1 - 3 = 0</td> <td>X</td> <td></td> </tr> <tr> <td>Multiple Dependent Claims</td> <td></td> <td>X</td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>103</td><td>22</td><td>203</td><td>11</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>82</td><td>202</td><td>41</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>270</td><td>204</td><td>135</td><td>Multiple dependent claim</td><td></td></tr> <tr><td>109</td><td>82</td><td>209</td><td>41</td><td>Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>22</td><td>210</td><td>11</td><td>Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr> <td colspan="5"><b>SUBTOTAL (2)</b></td> <td>(\$ ) 380.00</td> </tr> </tbody> </table>	Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid	101	790	201	395	Utility filing fee	380.00	106	330	206	165	Design filing fee		107	540	207	270	Plant filing fee		108	790	208	395	Reissue filing fee		114	150	214	75	Provisional filing fee		<b>SUBTOTAL (1)</b>					(\$ ) 380.00	Total Claims	Extra	Fee from below	Fee Paid	12	-20 = 0	X		Independent Claims	1 - 3 = 0	X		Multiple Dependent Claims		X		Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid	103	22	203	11	Claims in excess of 20		102	82	202	41	Independent claims in excess of 3		104	270	204	135	Multiple dependent claim		109	82	209	41	Reissue independent claims over original patent		110	22	210	11	Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (2)</b>					(\$ ) 380.00																																																																																
Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																															
101	790	201	395	Utility filing fee	380.00																																																																																																																																																																															
106	330	206	165	Design filing fee																																																																																																																																																																																
107	540	207	270	Plant filing fee																																																																																																																																																																																
108	790	208	395	Reissue filing fee																																																																																																																																																																																
114	150	214	75	Provisional filing fee																																																																																																																																																																																
<b>SUBTOTAL (1)</b>					(\$ ) 380.00																																																																																																																																																																															
Total Claims	Extra	Fee from below	Fee Paid																																																																																																																																																																																	
12	-20 = 0	X																																																																																																																																																																																		
Independent Claims	1 - 3 = 0	X																																																																																																																																																																																		
Multiple Dependent Claims		X																																																																																																																																																																																		
Large Entity Code	Large Entity Fee (\$)	Small Entity Code	Small Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																															
103	22	203	11	Claims in excess of 20																																																																																																																																																																																
102	82	202	41	Independent claims in excess of 3																																																																																																																																																																																
104	270	204	135	Multiple dependent claim																																																																																																																																																																																
109	82	209	41	Reissue independent claims over original patent																																																																																																																																																																																
110	22	210	11	Reissue claims in excess of 20 and over original patent																																																																																																																																																																																
<b>SUBTOTAL (2)</b>					(\$ ) 380.00																																																																																																																																																																															

SUBMITTED BY				Complete (if applicable)	
Typed or Printed Name	Gerald T. Shekléton			Reg. Number	27,466
Signature				Date	5/21/99
				Deposit Account User ID	23-0920

**Burden Hour Statement:** This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.